



UNITED STATES PATENT AND TRADEMARK OFFICE

H.27

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

08/427.866

04/26/1995

HISATAKA SUGIYAMA

4338

20457

7590

11/13/2006

ANTONELLI, TERRY, STOUT & KRAUS, LLP
1300 NORTH SEVENTEENTH STREET
SUITE 1800
ARLINGTON, VA 22209-3873

EXAMINER

PHAM, HAI CHI

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 11/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/427,866

Applicant(s)

SUGIYAMA ET AL.

Examiner

Hai C. Pham

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-21 and 23-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14, 16-21, 23, 25, 27 and 29-33 is/are allowed.
- 6) ☒ Claim(s) 15 and 24 is/are rejected.
- 7) ☒ Claim(s) 26 and 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 07/958,162.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>09/22/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. The following claims are objected to because of the following informalities:

Claim 14:

- Line 21, after "reference surface" add --where a spherical aberration becomes substantially zero--.

Claim 16:

- Line 18, "NAP" should read --NAF--.

Claim 18:

- Line 21, after "reference surface" add --where a spherical aberration becomes substantially zero--.

Claim 19:

- Line 18, "NAP" should read --NAF--,
- Line 21, after "reference surface" add --where a spherical aberration becomes substantially zero--.

Claim 21:

- Line 15, after "predetermined plane" add --where a spherical aberration becomes substantially zero--.

Claim 23:

- Line 17, after "reference surface" add --where a spherical aberration becomes substantially zero--.

Claim 26:

- Line 5, "NAP" should read --NAF--.

Claim 29:

- Line 20, "NAP" should read --NAF--.
- Line 23, after "reference surface" add --where a spherical aberration becomes substantially zero--.

Claim 31:

- Line 5, "NAP" should read --NAF--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 15 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Tomiyama et al. (US 5,777,969).

Tomiyama et al. discloses an optical disc medium comprising a substrate (signal layer 2) having a structure of an uneven-like shape on a flat surface (the signal layer 2 having data written to its surface forming signal pits), a first reflecting film (semi-transparent film 4 having a reflectance in the range of 20-40%) formed on the substrate and having a surface contoured to the uneven-like shape of the substrate, for reflecting

Art Unit: 2861

a light having a predetermined wavelength (the semi-transparent film 4 has a surface contoured to the signal pits on the surface of the signal layer 2 and reflects part of an incident laser light), a resin layer (space layer 6 made of UV-cured resin directly formed on the signal layer 2) (col. 6, lines 40-41) having an uneven-like shape on a flat surface directly formed on the first reflecting film, and a second reflecting film (reflective film 10) formed on the resin layer and having a surface contoured to the uneven-like shape of the resin layer, for reflecting a light having a predetermined wavelength (the reflective film 10 has a surface contoured to the data information patterns formed on the surface of the signal layer 8), wherein the uneven-like shapes of the first and second reflecting films represent information, respectively (the uneven shapes of the reflecting layers 4 and 10 represents the data information being stored on their respective surfaces) (col. 3, line 26 to col. 4, line 5), wherein the first and second films (4 and 10) lie in a range from a predetermined plane where a spherical aberration becomes substantially zero, to $\pm 50 \mu\text{m}$ in a direction perpendicular to the substrate (the space layer 6 has a thickness in the range of 20-30 μm on each side of the plane passing through the best focus position FP of the laser beam while equalizing jitters of signals played back by the optical pickup) (col. 1, line 60 to col. 2, line 9) (col. 3, lines 59-64).

Allowable Subject Matter

4. Claims 14, 16-21, 23, 25, 27 and 29-33 are allowed.

5. Claims 26 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments with respect to claims 15 and 24 have been considered but are moot in view of the new grounds of rejection.

Contact information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C. Pham whose telephone number is (571) 272-2260. The examiner can normally be reached on M-F 8:30AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2861

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

November 8, 2006


HAI PHAM
PRIMARY EXAMINER